

#4

SEQUENCE LISTING

<110> E. I. du Pont de Nemours and Company

<120> UDP-Glucose Modifiers

<130> BB1321

<140>

<141>

<150> 60/119,588

<151> 1999-February-10

<160> 28

<170> Microsoft Office 97

<210> 1

<211> 509

<212> DNA

<213> Zea mays

<220>

<221> unsure

<222> (413)

<220>

<221> unsure

<222> (465)

<220>

<221> unsure

<222> (485)

<400> 1

gattgatctc cgtgacaagg gagcactgga aatgggtttt gcttctacaa gatttgaagc 60
tgtcattcac ttcgctggat tgaaagctgt ggggtgaaagc gtacagaagc cattacttta 120
ttatgacaac aacgtcattg gcacgataaa tcttctagaa gttatgtctg ttcacggttg 180
caagaagttg gtgttctcat catcagctgc agtttatgga tcacccaaaa actcaccctg 240
cacagaaaat ttctctctta ctccaaacaa tccatatggc aaaacaaagc tcggtgttga 300
agatatttgc cgggatatct accgttcaga tcttgaatgg aagatcattt tacttaggta 360
cttcaatcca gttggtgctc atcctagtgg atatcttggc gaggaccac gangaattcc 420
caacaatctt atgccctatg ttcagcaagt tggggttggg aagangccag ctctaacagt 480
tttangaaat gactatgcaa caagagatg 509

<210> 2

<211> 169

<212> PRT

<213> Zea mays

<220>

<221> UNSURE

<222> (138)

<220>

<221> UNSURE

<222> (155)

<220>
 <221> UNSURE
 <222> (162)

<400> 2
 Ile Asp Leu Arg Asp Lys Gly Ala Leu Glu Met Val Phe Ala Ser Thr
 1 5 10 15
 Arg Phe Glu Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu
 20 25 30
 Ser Val Gln Lys Pro Leu Leu Tyr Tyr Asp Asn Asn Val Ile Gly Thr
 35 40 45
 Ile Asn Leu Leu Glu Val Met Ser Val His Gly Cys Lys Lys Leu Val
 50 55 60
 Phe Ser Ser Ser Ala Ala Val Tyr Gly Ser Pro Lys Asn Ser Pro Cys
 65 70 75 80
 Thr Glu Asn Phe Pro Leu Thr Pro Asn Asn Pro Tyr Gly Lys Thr Lys
 85 90 95
 Leu Val Val Glu Asp Ile Cys Arg Asp Ile Tyr Arg Ser Asp Pro Glu
 100 105 110
 Trp Lys Ile Ile Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His Pro
 115 120 125
 Ser Gly Tyr Leu Gly Glu Asp Pro Arg Xaa Ile Pro Asn Asn Leu Met
 130 135 140
 Pro Tyr Val Gln Gln Val Ala Val Gly Lys Xaa Pro Ala Leu Thr Val
 145 150 155 160
 Leu Xaa Asn Asp Tyr Ala Thr Arg Asp
 165

<210> 3
 <211> 456
 <212> DNA
 <213> *Oryza sativa*

<220>
 <221> unsure
 <222> (322)

<220>
 <221> unsure
 <222> (352)

<220>
 <221> unsure
 <222> (391)

<220>
 <221> unsure
 <222> (406)

<220>

<221> unsure

<222> (447)

<220>

<221> unsure

<222> (452)

<400> 3

```
atcactcttc ttcttcgct ctctagcttt gctttgcttg cttcatcaaa cccacacac 60
gcacacaaca acaacaagag taatcaaagt agaagaagat ggtttcggcc ttgttgcgga 120
cgatcctggg gacgggcggc gccggctaca tcggcagcca caccgtctc cagcttctcc 180
aactcggctt ccgcgttgtc gtcctcgaca acctcgacaa cgctccgag ctgccatcc 240
tccgcgtagc ggaactcgcc ggacacaacg ccaacaacct cgacttcgc aagggtgacc 300
tccgcgacaa gcaagcgttg gnccaaatct tctcctctca aaagggtgag gntgtcatcc 360
aatttgccgg gctgaaaact gttggcgaaa ncgtgaaaaa cccctngttt tacgaaacaa 420
ctcatcgac ataaccacct gcagggnata gnggca 456
```

<210> 4

<211> 99

<212> PRT

<213> Oryza sativa

<220>

<221> UNSURE

<222> (69)

<220>

<221> UNSURE

<222> (79)

<220>

<221> UNSURE

<222> (92)

<220>

<221> UNSURE

<222> (97)

<400> 4

```
Arg Thr Ile Leu Val Thr Gly Gly Ala Gly Tyr Ile Gly Ser His Thr
 1           5           10           15
Val Leu Gln Leu Leu Gln Leu Gly Phe Arg Val Val Val Leu Asp Asn
          20           25           30
Leu Asp Asn Ala Ser Glu Leu Ala Ile Leu Arg Val Arg Glu Leu Ala
          35           40           45
Gly His Asn Ala Asn Asn Leu Asp Phe Arg Lys Gly Asp Leu Arg Asp
          50           55           60
Lys Gln Ala Leu Xaa Gln Ile Phe Ser Ser Gln Lys Val Glu Xaa Val
          65           70           75           80
Ile Gln Phe Ala Gly Leu Lys Thr Val Gly Glu Xaa Val Lys Asn Pro
          85           90           95
Xaa Phe Tyr
```

<210> 5
<211> 479
<212> DNA
<213> Glycine max

<220>
<221> unsure
<222> (17)

<220>
<221> unsure
<222> (19)

<220>
<221> unsure
<222> (27)

<220>
<221> unsure
<222> (34)

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (63)

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (81)

<220>
<221> unsure
<222> (99)

<220>
<221> unsure
<222> (189)

<220>
<221> unsure
<222> (225)

<220>
<221> unsure
<222> (360)

<220>
<221> unsure
<222> (369)

<220>
 <221> unsure
 <222> (390)

<220>
 <221> unsure
 <222> (446)

<400> 5
 agcaattctc tccctcnena atgcagnatg gggnccttcct cccaacanat tctgggtcacc 60
 ggngggnggcg gtttcattgg naccacacacc gtcgttcanc ttctcaaagc tggcttcagc 120
 gtttcaataa tgcacaattt cgataactcc gtcattggaag caatggaccg cgtccgccaa 180
 gtggttggn ctcctgctttc tcaaaaacctc caattcaccc aaggngatct ccggaatagg 240
 gatgacttgg agaaaactctt ctccaaaaca acatttgatg ccgtgatcca ctttgctggc 300
 ttgaaaagcg gttgctgaaa gcgttgcgaa accccgtcgc tattttgatt ttaatttggn 360
 tgggaccanc aacctctacg agtttatggn aaagtataat tgcaaaaaga tgggtttctc 420
 atcatctgca accgtttatg ggcaanctga aaaaataccg tgtgaggagg attcaagtt 479

<210> 6
 <211> 148
 <212> PRT
 <213> Glycine max

<220>
 <221> UNSURE
 <222> (3)

<220>
 <221> UNSURE
 <222> (7)

<220>
 <221> UNSURE
 <222> (24)

<220>
 <221> UNSURE
 <222> (111)

<220>
 <221> UNSURE
 <222> (114)

<220>
 <221> UNSURE
 <222> (121)

<220>
 <221> UNSURE
 <222> (140)

<400> 6
 Met Gly Xaa Ser Ser Gln Xaa Ile Leu Val Thr Gly Gly Gly Gly Phe
 1 5 10 15
 Ile Gly Thr His Thr Val Val Xaa Leu Leu Lys Ala Gly Phe Ser Val
 20 25 30
 Ser Ile Ile Asp Asn Phe Asp Asn Ser Val Met Glu Ala Met Asp Arg
 35 40 45

Val Arg Gln Val Val Gly Pro Leu Leu Ser Gln Asn Leu Gln Phe Thr
 50 55 60
 Gln Gly Asp Leu Arg Asn Arg Asp Asp Leu Glu Lys Leu Phe Ser Lys
 65 70 75 80
 Thr Thr Phe Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Ala
 85 90 95
 Glu Ser Val Ala Lys Pro Arg Arg Tyr Phe Asp Phe Asn Leu Xaa Gly
 100 105 110
 Thr Xaa Asn Leu Tyr Glu Phe Met Xaa Lys Tyr Asn Cys Lys Lys Met
 115 120 125
 Gly Phe Ser Ser Ser Ala Thr Val Tyr Gly Gln Xaa Glu Lys Ile Pro
 130 135 140

Cys Glu Glu Asp
 145

<210> 7
 <211> 520
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (498)

<220>
 <221> unsure
 <222> (508)

<220>
 <221> unsure
 <222> (513)

<220>
 <221> unsure
 <222> (518)

<400> 7
 ggagcgtgct ggtgaccggc ggcgcgggggt tcatcggcac gcacaccgtg ctgcagctgc 60
 tggagaaggg ctacgccgtc accgccgtcg acaacttcca caactccgtc cccgaggcgc 120
 tcgaccgcgt ccgccacatc gtcggccccg ccctctccgc ccgctccaa ttcattctcg 180
 gggacctgac gatcaaggat gacctggaga aggtcttcgc cgccaagaag tacgacgccg 240
 tgatacactt cgccggggtc aaggcggtgg cggagagcgt ggcgcacccg gagatgtaca 300
 accgcaacaa catcgtcggc accgtcaacc tctacgacgt catgaagaag cacgggtgca 360
 acaagttggt gttctcgtcg tcggcgaccg tgtacggcca gccggagaag gtgccctgct 420
 tcgaggactc cccctcaag gccctcaacc cgtacggcag gaccaagctg tactggagga 480
 gatctgcgcg actaccanca cgccgaancc gngtgngng 520

<210> 8
 <211> 162
 <212> PRT
 <213> Triticum aestivum

<400> 8
Val Leu Val Thr Gly Gly Ala Gly Phe Ile Gly Thr His Thr Val Leu
1 5 10 15
Gln Leu Leu Glu Lys Gly Tyr Ala Val Thr Ala Val Asp Asn Phe His
20 25 30
Asn Ser Val Pro Glu Ala Leu Asp Arg Val Arg His Ile Val Gly Pro
35 40 45
Ala Leu Ser Ala Arg Leu Gln Phe Ile Phe Gly Asp Leu Thr Ile Lys
50 55 60
Asp Asp Leu Glu Lys Val Phe Ala Ala Lys Lys Tyr Asp Ala Val Ile
65 70 75 80
His Phe Ala Gly Leu Lys Ala Val Ala Glu Ser Val Ala His Pro Glu
85 90 95
Met Tyr Asn Arg Asn Asn Ile Val Gly Thr Val Asn Leu Tyr Asp Val
100 105 110
Met Lys Lys His Gly Cys Asn Lys Leu Val Phe Ser Ser Ser Ala Thr
115 120 125
Val Tyr Gly Gln Pro Glu Lys Val Pro Cys Phe Glu Asp Ser Pro Leu
130 135 140
Lys Ala Leu Asn Pro Tyr Gly Arg Thr Lys Leu Tyr Trp Arg Arg Ser
145 150 155 160
Ala Arg

<210> 9
<211> 594
<212> DNA
<213> Zea mays

<220>
<221> unsure
<222> (340)

<220>
<221> unsure
<222> (345)

<220>
<221> unsure
<222> (399)

<220>
<221> unsure
<222> (407)

<220>
<221> unsure
<222> (435)

<220>
<221> unsure
<222> (460)

<220>
<221> unsure
<222> (523)

<220>
<221> unsure
<222> (531)

<220>
<221> unsure
<222> (568)

<220>
<221> unsure
<222> (587)

<220>
<221> unsure
<222> (592)

<400> 9
ggacgcccgtc atccacttcg ctgggctgaa ggccgctgggg gaaagcgtcg cgcacccgga 60
gatgtactac gagaacaacc tcacggcac catcaacctc tacaagagca tgaaggagca 120
cggctgcaag aagctgggtt tctcgtcac cgccaccgtg tacggctggc cggaggtgat 180
cccatgctgc gaggactcca agctgcaggc cgccaacca tacggcagga ccaagcttat 240
ccttgaggat atggcgcggtg actaccaccg cgcggacacg gagtggagca tcgtcctgct 300
gcgctacttc aaccccatcg gtgcgcacag ctccggcgan atcgggagag gaccccaagg 360
ggataccgaa caacctgctg ccctacatcc agcaggtcnc cgtcgggnagg ctccccgagc 420
tcaacgtcta cgggncacga ttacccacc cggggacggn accgcgatca gggactacat 480
acacgtcgtc gaactcgccg atgggcacat cgcaagggct cangaactct ncgactctcc 540
tgatataagt tgtgtgggct acaatctngg ggtacaaggg cggcggnaca tncg 594

<210> 10
<211> 197
<212> PRT
<213> Zea mays

<220>
<221> UNSURE
<222> (113)

<220>
<221> UNSURE
<222> (115)

<220>
<221> UNSURE
<222> (133)

<220>
<221> UNSURE
<222> (136)

<220>
<221> UNSURE
<222> (145)

<220>
 <221> UNSURE
 <222> (174)

 <220>
 <221> UNSURE
 <222> (177)

 <220>
 <221> UNSURE
 <222> (196)..(197)

 <400> 10
 Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu Ser Val
 1 5 10 15
 Ala His Pro Glu Met Tyr Tyr Glu Asn Asn Leu Ile Gly Thr Ile Asn
 20 25 30
 Leu Tyr Lys Ser Met Lys Glu His Gly Cys Lys Lys Leu Val Phe Ser
 35 40 45
 Ser Ser Ala Thr Val Tyr Gly Trp Pro Glu Val Ile Pro Cys Val Glu
 50 55 60
 Asp Ser Lys Leu Gln Ala Ala Asn Pro Tyr Gly Arg Thr Lys Leu Ile
 65 70 75 80
 Leu Glu Asp Met Ala Arg Asp Tyr His Arg Ala Asp Thr Glu Trp Ser
 85 90 95
 Ile Val Leu Leu Arg Tyr Phe Asn Pro Ile Gly Ala His Ser Ser Gly
 100 105 110
 Xaa Ile Xaa Arg Gly Pro Gln Gly Asp Thr Glu Gln Pro Ala Ala Leu
 115 120 125
 His Pro Ala Gly Xaa Arg Arg Xaa Ala Pro Arg Ala Gln Arg Leu Arg
 130 135 140
 Xaa Thr Ile Thr Pro Pro Gly Asp Gly Thr Ala Ile Arg Asp Tyr Ile
 145 150 155 160
 His Val Val Glu Leu Ala Asp Gly His Ile Ala Arg Ala Xaa Glu Leu
 165 170 175
 Xaa Asp Ser Pro Asp Ile Ser Cys Val Gly Tyr Asn Leu Gly Val Gln
 180 185 190
 Gly Arg Arg Xaa Xaa
 195

 <210> 11
 <211> 300
 <212> DNA
 <213> Oryza sativa

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (41)

<220>
<221> unsure
<222> (85)

<220>
<221> unsure
<222> (154)

<220>
<221> unsure
<222> (177)

<220>
<221> unsure
<222> (180)

<220>
<221> unsure
<222> (184)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (209)

<220>
<221> unsure
<222> (214)

<220>
<221> unsure
<222> (227)

<220>
<221> unsure
<222> (247)

<220>
<221> unsure
<222> (252)

<220>
<221> unsure
<222> (283)

<220>
<221> unsure
<222> (285)

<400> 11
aggacttaaa agacaggnac aactggaata agtggttacgc ngccaagagg tatgacgccg 60
tgatccactt cgccgggctg aagcngtggg ggagagcgtc gcgcaaccgc cagatgtact 120
acgaggacaa cgtcgccggc accatgaacc tctnctccgc cttgaccaag tacggcngcn 180
agangatagt gttctcgtcg tnggcgacng tgtncggcca gccgganaag accccctgcg 240
tcgaggnttc cnagctgagc gctctcaacc catacggcgc cancnggctc gtcctggaga 300

<210> 12
<211> 99
<212> PRT
<213> Oryza sativa

<220>
<221> UNSURE
<222> (6)

<220>
<221> UNSURE
<222> (28)

<220>
<221> UNSURE
<222> (51)

<220>
<221> UNSURE
<222> (59) .. (60) .. (61)

<220>
<221> UNSURE
<222> (67)

<220>
<221> UNSURE
<222> (71)

<220>
<221> UNSURE
<222> (75)

<220>
<221> UNSURE
<222> (82)

<220>
<221> UNSURE
<222> (84)

<220>
<221> UNSURE
<222> (94) .. (95)

<400> 12
Asp Leu Lys Asp Arg Xaa Asn Trp Asn Lys Cys Tyr Ala Ala Lys Arg
1 5 10 15
Tyr Asp Ala Val Ile His Phe Ala Gly Leu Lys Xaa Trp Gly Arg Ala
20 25 30

Ser Arg Asn Pro Gln Met Tyr Tyr Glu Asp Asn Val Ala Gly Thr Met
 35 40 45

Asn Leu Xaa Ser Ala Leu Thr Lys Tyr Gly Xaa Xaa Xaa Ile Val Phe
 50 55 60

Ser Ser Xaa Ala Thr Val Xaa Gly Gln Pro Xaa Lys Thr Pro Cys Val
 65 70 75 80

Glu Xaa Ser Xaa Leu Ser Ala Leu Asn Pro Tyr Gly Ala Xaa Xaa Leu
 85 90 95

Val Leu Glu

<210> 13
 <211> 1312
 <212> DNA
 <213> Glycine max

<400> 13
 gcacgagcca cttctctccc tctctattgc agcatgggtgt cttcctccca acacattctg 60
 gtcaccgggtg gtgccgggttt cattggcacc cacaccgtcg ttcagcttct caaagctggc 120
 ttcagcggtt caataatcga caatttcgat aactccgtca tggaaagcagt ggaccgcgtc 180
 cgccaagtgg ttggccctct gctttctcag aacctccaat tcaccagagg cgatctccgg 240
 aatagggatg acttgagaga actcttctcc aaaacaacat ttgatgccgt gatccacttt 300
 gctggcctga aagcggttgc tgaaagcggt gcgaagcccc gtcgctattt tgattttaat 360
 ttggttgga ccatcaacct ctacgagttt atggcaaaagt ataattgcaa aaagatgggt 420
 ttctcatcat ctgcaaccgt ttatggccaa cctgaaaaga taccgtgtga ggaggatttc 480
 aagttacaag ctatgaatcc ctatggacgg accaagcttt tcctggaaga aattgcccga 540
 gatattcaga aagctgaacc agaatggaag atcatattac tgagatactt caatccagtt 600
 ggggctcatg aaagtggcaa actcgggtgaa gatcccaagg gcatcccaaa taacctcatg 660
 ccttacattc agcaagtagc tggtggaaga ttgactgaac tcaatgtata cggatcatgat 720
 tatccaacga gggatggctc tgcgatccgg gactatatcc atgtgatgga cttggcagat 780
 ggccatatgt ctgccctgcg aaagctcttc acaacggaga acatagggtg tactgcttac 840
 aacctgggaa ctggtcgtgg aacatctgtg cttgaaatgg ttacagcatt tgaaaaggct 900
 tctggcaaga aaattccagt aaaattatgt ccaagaagac cgggagatgc gactgagggt 960
 tatgcatcta cagagagagc tgagaaagaa cttggttggg aggcaaaacta tgggtgtggg 1020
 gagatgtgca gggaccaatg gaattgggca aagaacaatc cctgggggta cgcggggaag 1080
 ccttgaaatta gcttgagaaa tatactgctc atctacgaat gcttttcaca taaataggca 1140
 tctcttatat agaatacttt tatgtttgat gatttgttta ggcagttcgt tgtataatct 1200
 tgacaataaaa aatttggcag catttcaaga agttaaagct atgtatttaa acaataactt 1260
 taaattagac tggccattga tttgatattg aaaaaaaaaa aaaaaaaaaa aa 1312

<210> 14
 <211> 350
 <212> PRT
 <213> Glycine max

<400> 14
 Met Val Ser Ser Ser Gln His Ile Leu Val Thr Gly Gly Ala Gly Phe
 1 5 10 15

Ile Gly Thr His Thr Val Val Gln Leu Leu Lys Ala Gly Phe Ser Val
 20 25 30

Ser Ile Ile Asp Asn Phe Asp Asn Ser Val Met Glu Ala Val Asp Arg
 35 40 45

Val Arg Gln Val Val Gly Pro Leu Leu Ser Gln Asn Leu Gln Phe Thr
 50 55 60
 Gln Gly Asp Leu Arg Asn Arg Asp Asp Leu Glu Lys Leu Phe Ser Lys
 65 70 75 80
 Thr Thr Phe Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Ala
 85 90 95
 Glu Ser Val Ala Lys Pro Arg Arg Tyr Phe Asp Phe Asn Leu Val Gly
 100 105 110
 Thr Ile Asn Leu Tyr Glu Phe Met Ala Lys Tyr Asn Cys Lys Lys Met
 115 120 125
 Val Phe Ser Ser Ser Ala Thr Val Tyr Gly Gln Pro Glu Lys Ile Pro
 130 135 140
 Cys Glu Glu Asp Phe Lys Leu Gln Ala Met Asn Pro Tyr Gly Arg Thr
 145 150 155 160
 Lys Leu Phe Leu Glu Glu Ile Ala Arg Asp Ile Gln Lys Ala Glu Pro
 165 170 175
 Glu Trp Lys Ile Ile Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His
 180 185 190
 Glu Ser Gly Lys Leu Gly Glu Asp Pro Lys Gly Ile Pro Asn Asn Leu
 195 200 205
 Met Pro Tyr Ile Gln Gln Val Ala Val Gly Arg Leu Thr Glu Leu Asn
 210 215 220
 Val Tyr Gly His Asp Tyr Pro Thr Arg Asp Gly Ser Ala Ile Arg Asp
 225 230 235 240
 Tyr Ile His Val Met Asp Leu Ala Asp Gly His Ile Ala Ala Leu Arg
 245 250 255
 Lys Leu Phe Thr Thr Glu Asn Ile Gly Cys Thr Ala Tyr Asn Leu Gly
 260 265 270
 Thr Gly Arg Gly Thr Ser Val Leu Glu Met Val Thr Ala Phe Glu Lys
 275 280 285
 Ala Ser Gly Lys Lys Ile Pro Val Lys Leu Cys Pro Arg Arg Pro Gly
 290 295 300
 Asp Ala Thr Glu Val Tyr Ala Ser Thr Glu Arg Ala Glu Lys Glu Leu
 305 310 315 320
 Gly Trp Lys Ala Asn Tyr Gly Val Glu Glu Met Cys Arg Asp Gln Trp
 325 330 335
 Asn Trp Ala Lys Asn Asn Pro Trp Gly Tyr Ala Gly Lys Pro
 340 345 350

<210> 15
 <211> 1516

<212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (1458)..(1459)

<400> 15
 gcacgagggga gcggtgctggt gaccgggcggc gcgggggttca tcggcacgca caccgtgctg 60
 cagctgctgg agaagggcta cgccgtcacc gccgtcgaca acttccacaa ctccgtcccc 120
 gaggcgctcg accgcgtccg ccacatcgtc ggccccgccc tctccgccc cctccaattc 180
 atcttcgggg acctgacgat caaggatgac ctggagaagg tcttcgccc caagaagtac 240
 gacgccgtga tacacttcgc cgggctcaag gcggtggcgg agagcgtggc gaccccgag 300
 atgtacaacc gcaacaacat cgtcggcacc gtcaacctct acgacgtcat gaagaagcac 360
 ggggtgcaaca agttggtggt ctgctgctcg gcgaccgtgt acggccagcc ggagaagggtg 420
 ccctgcttcg aggactcccc cctcaaggcc ctcaaccctg acggcaggac caagctgtac 480
 ctggaggaga tgctgcgcga ctaccagcac gcgaaccctg agtggaggac gatcctgctg 540
 cgctacttca accccatcgg cgcacacgag agcggcgaca tcggggagga ccccaagggc 600
 gtccccaaca acctgctccc ctacatccag caggtggccc tcgcccgcgc ccccgagctc 660
 aacgtctacg gccacgacta ccgcacccgc gacggcaccg ccgtcaggga ctacatccac 720
 gtggctcgacc tcgccgacgg ccacatcgcg gcgctcgaga agctcttcgc cacccttgac 780
 atcggctgtg tggcgtaaca cctggggacg gggcgcgagg cgacggtgct ggagatggtg 840
 agcgcgttcg agaaggcata cggcaagaaa atcccgggtga agatgtgccc caggaggccg 900
 ggcgattcgg agcaggtgta cgcgtccacc gccaaaggccg aagaggagct cggctggagg 960
 gccaaagtac ggatcgagga gatgtgcagg gaccagtga actgggccaa gaagaacccg 1020
 tatggctact gcggcaacgc tgctgagaac aaagactgat tcggtggccc gtcgcgagcc 1080
 ttgtaacgtg aaagaaaaga tgtgtcaata agcccagggc attaaagtgt gccagaaaaa 1140
 tgtttcctgt tgtggtacta ttcgtaagtt ggaacttgag ttgggttaga ctggactgtc 1200
 actgggccgg gctgttcctt ggtgaagaat ttggtctggt ttcgaacatg ggccgtcatc 1260
 tgcttccttt tttttcaaat gatagagcga gaccgatgag gcaaaaaaaaa aaaaaaaaaa 1320
 aaaaaaaaaa aaagaaaaaa aaaaagacaa aaaaaaacg agaaaggaga aaaaaatgac 1380
 agaaggaaag agaaaaagaa ggcgcaaaagc gggggccccgc cgaacggacc gacggcgcg 1440
 cgcgacggag aaagcgcnnt ttcaggccgg ggggggggggg ggaacccctg ttccctaagg 1500
 ggggcctcaa tccccg 1516

<210> 16
 <211> 352
 <212> PRT
 <213> Triticum aestivum

<400> 16
 Ala Arg Gly Ser Val Leu Val Thr Gly Gly Ala Gly Phe Ile Gly Thr
 1 5 10 15
 His Thr Val Leu Gln Leu Leu Glu Lys Gly Tyr Ala Val Thr Ala Val
 20 25 30
 Asp Asn Phe His Asn Ser Val Pro Glu Ala Leu Asp Arg Val Arg His
 35 40 45
 Ile Val Gly Pro Ala Leu Ser Ala Arg Leu Gln Phe Ile Phe Gly Asp
 50 55 60
 Leu Thr Ile Lys Asp Asp Leu Glu Lys Val Phe Ala Ala Lys Lys Tyr
 65 70 75 80
 Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Ala Glu Ser Val
 85 90 95

Ala His Pro Glu Met Tyr Asn Arg Asn Asn Ile Val Gly Thr Val Asn
 100 105 110
 Leu Tyr Asp Val Met Lys Lys His Gly Cys Asn Lys Leu Val Phe Ser
 115 120 125
 Ser Ser Ala Thr Val Tyr Gly Gln Pro Glu Lys Val Pro Cys Phe Glu
 130 135 140
 Asp Ser Pro Leu Lys Ala Leu Asn Pro Tyr Gly Arg Thr Lys Leu Tyr
 145 150 155 160
 Leu Glu Glu Met Leu Arg Asp Tyr Gln His Ala Asn Pro Glu Trp Arg
 165 170 175
 Thr Ile Leu Leu Arg Tyr Phe Asn Pro Ile Gly Ala His Glu Ser Gly
 180 185 190
 Asp Ile Gly Glu Asp Pro Lys Gly Val Pro Asn Asn Leu Leu Pro Tyr
 195 200 205
 Ile Gln Gln Val Ala Val Ala Arg Arg Pro Glu Leu Asn Val Tyr Gly
 210 215 220
 His Asp Tyr Arg Thr Arg Asp Gly Thr Ala Val Arg Asp Tyr Ile His
 225 230 235 240
 Val Val Asp Leu Ala Asp Gly His Ile Ala Ala Leu Glu Lys Leu Phe
 245 250 255
 Ala Thr Pro Asp Ile Gly Cys Val Ala Tyr Asn Leu Gly Thr Gly Arg
 260 265 270
 Gly Thr Thr Val Leu Glu Met Val Ser Ala Phe Glu Lys Ala Tyr Gly
 275 280 285
 Lys Lys Ile Pro Val Lys Met Cys Pro Arg Arg Pro Gly Asp Ser Glu
 290 295 300
 Gln Val Tyr Ala Ser Thr Ala Lys Ala Glu Glu Glu Leu Gly Trp Arg
 305 310 315 320
 Ala Lys Tyr Gly Ile Glu Glu Met Cys Arg Asp Gln Trp Asn Trp Ala
 325 330 335
 Lys Lys Asn Pro Tyr Gly Tyr Cys Gly Asn Ala Ala Glu Asn Lys Asp
 340 345 350

<210> 17
 <211> 1393
 <212> DNA
 <213> Zea mays

<400> 17
 gcacgaggat tgatctccgt gacaagggag cactggaaat gggttttgct tctacaagat 60
 ttgaagctgt cattcacttc gctggattga aagctgtggg tgaaagcgta cagaagccat 120
 tactttatta tgacaacaac gtcattggca cgataaatct tctagaagtt atgtctgttc 180
 acggttgcaa gaagttggtg ttctcatcat cagctgcagt ttatggatca ccaaaaaact 240
 caccctgcac agaaaatttt cctcttactc caaacaatcc atatggcaaa acaaagctcg 300
 ttgttgaaga tatttgccgg gatattctacc gttcagatcc tgaatggaag atcattttac 360

```

ttaggtactt caatccagtt ggtgctcatc ctagtggata tcttggcgag gacccacgag 420
gaattcccaa caatcttatg ccctatgttc agcaagttgc ggttggtagg aggccagctc 480
taacagtttt aggaaatgac tatgcaacaa gagatgggac tgggggtccga gattacatcc 540
atgtggttga ccttgctgac ggacatatgt ctgcattgca gaagcttttt gagaactcta 600
gcataggggtg tgaagcgtac aaccttgga ccggaagagg tacatctgtg ctggagattg 660
ttaaagcatt tgagaaggct tctgggaaga aaatacctct gatttttggg gaaagacgcc 720
caggtgatgc agagattctg ttttcagaga ctactaaagc agagagggag cttaactgga 780
aagcaaaata cgggtattgaa gagatgtgcc gcgaccaatg gaactgggcc agcaagaacc 840
cttatggcta tggatcacct gactctatca agcagaatgg tcaccaaaca aacggatccg 900
ctgactcctc caagcagaat ggccaccgca caaacggttc aactgactca cccaagcgga 960
acggccacca tgcgtatggg tctgctgact caccgaagcg caacgggcac tgcgtttttg 1020
gatcatcaga cctcaagccg aatggtaatg gccacctgcy ctgagcagaa ctgtttggcc 1080
tgtgagctcc ctgtacattc ggttgcgatg tgagctccct gcacgttcgg tcgaggtcta 1140
tcgtgaacct actatccgag attgatgtgg atcattgggt tgacaggtca tacagtatag 1200
agccgggtggc agaggaattc ctgtttgctg tgggtaaagc ttatcttctg ctttcgtgtt 1260
ttttcttgct tctttcgatt atggtgtagg aatgtggtca taatgtatta gctgattatc 1320
ctttccctgc taattggact ttattacgct tcaaaaaaaaa aaaaaaaaaa 1380
aaaaaaaaaa aaa 1393

```

```

<210> 18
<211> 353
<212> PRT
<213> Zea mays

```

```

<400> 18
Thr Arg Ile Asp Leu Arg Asp Lys Gly Ala Leu Glu Met Val Phe Ala
 1             5             10             15

Ser Thr Arg Phe Glu Ala Val Ile His Phe Ala Gly Leu Lys Ala Val
          20             25             30

Gly Glu Ser Val Gln Lys Pro Leu Leu Tyr Tyr Asp Asn Asn Val Ile
          35             40             45

Gly Thr Ile Asn Leu Leu Glu Val Met Ser Val His Gly Cys Lys Lys
 50             55             60

Leu Val Phe Ser Ser Ser Ala Ala Val Tyr Gly Ser Pro Lys Asn Ser
 65             70             75             80

Pro Cys Thr Glu Asn Phe Pro Leu Thr Pro Asn Asn Pro Tyr Gly Lys
          85             90             95

Thr Lys Leu Val Val Glu Asp Ile Cys Arg Asp Ile Tyr Arg Ser Asp
        100             105             110

Pro Glu Trp Lys Ile Ile Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala
        115             120             125

His Pro Ser Gly Tyr Leu Gly Glu Asp Pro Arg Gly Ile Pro Asn Asn
        130             135             140

Leu Met Pro Tyr Val Gln Gln Val Ala Val Gly Arg Arg Pro Ala Leu
        145             150             155             160

Thr Val Leu Gly Asn Asp Tyr Ala Thr Arg Asp Gly Thr Gly Val Arg
          165             170             175

Asp Tyr Ile His Val Val Asp Leu Ala Asp Gly His Ile Ala Ala Leu
        180             185             190

```


Gln Lys Leu Phe Glu Asn Ser Ser Ile Gly Cys Glu Ala Tyr Asn Leu
 195 200 205
 Gly Thr Gly Arg Gly Thr Ser Val Leu Glu Ile Val Lys Ala Phe Glu
 210 215 220
 Lys Ala Ser Gly Lys Lys Ile Pro Leu Ile Phe Gly Glu Arg Arg Pro
 225 230 235 240
 Gly Asp Ala Glu Ile Leu Phe Ser Glu Thr Thr Lys Ala Glu Arg Glu
 245 250 255
 Leu Asn Trp Lys Ala Lys Tyr Gly Ile Glu Glu Met Cys Arg Asp Gln
 260 265 270
 Trp Asn Trp Ala Ser Lys Asn Pro Tyr Gly Tyr Gly Ser Pro Asp Ser
 275 280 285
 Ile Lys Gln Asn Gly His Gln Thr Asn Gly Ser Ala Asp Ser Ser Lys
 290 295 300
 Gln Asn Gly His Arg Thr Asn Gly Ser Thr Asp Ser Pro Lys Arg Asn
 305 310 315 320
 Gly His His Ala Tyr Gly Ser Ala Asp Ser Pro Lys Arg Asn Gly His
 325 330 335
 Cys Val Phe Gly Ser Ser Asp Leu Lys Pro Asn Gly Asn Gly His Leu
 340 345 350

Arg

<210> 19
 <211> 1498
 <212> DNA
 <213> *Oryza sativa*

<400> 19
 gcacgagatc actcttcttc ttccgctctc tagctttgct ttgcttgctt catcaaacc 60
 cacacacgca cacaacaaca acaagagtaa tcaaagtaga agaagatggt ttcggccttg 120
 ttgcggacga tcttggtgac gggcggcgcc ggctacatcg gcagccacac cgtcctccag 180
 cttctccaac tcggcttccg cgttgctcgc ctcgacaacc tcgacaacgc ctccgagctc 240
 gccatcctcc gcgtcaggga actcgccgga cacaacgcca acaacctcga cttccgcaag 300
 gttgacctcc gcgacaagca agcgttggac caaatcttct cctctcaaag gtttgaggct 360
 gtcattccatt ttgccgggct gaaagctggt ggcgagagcg tgcagaagcc cctgctttac 420
 tacgacaaca acctcatcgg caccatcact ctctgcagg tcatggccgc acatggctgc 480
 accaagctgg tggtctcatc atccgcaact gtctacgggt ggcccaagga ggtgccctgc 540
 actgaagaat cccacttttg tgcaatgaac ccctacggca gaacaaagct ggtaatcgaa 600
 gacatgtgcc gggatctgca tgctcagac ccaaactgga agatcatact gctccgatac 660
 ttcaaccttg ttggagctca cccaagcggg tacattggtg aggacccctg cggcatccca 720
 aacaacctca tgcccttcgt ccagcaggtc gctgttggca ggaggccggc ccttaccgtc 780
 tatggaaccg actacaacac caaggatgga actgggggtc gtgactatat ccatgttggt 840
 gatctagcgg atggtcatat cgccgcgtta aggaagctct atgaagattc tgatagaata 900
 ggatgtgagg tgtacaatct gggcactgga aaggggacat ctgtgctgga aatggttgca 960
 gcattcgaga aagcttcttg aaagaaaatc ccgcttgat ttgctggacg aaggcctgga 1020
 gatgccgaga tcgtttacgc tcaaatgcc aaagctgaga aggaactgaa atggaaggca 1080
 aaatacgggg tagaggagat gtgcagggac ctgtggaatt gggcgagcaa gaaccctac 1140
 gggatatgat cgccggacag tagcaactga tccagctgaa tataggcgct caatcctcca 1200

gtagcagcag cagcagcatg acttctatac atatatatat ataatcataa agaatgaaga 1260
aacaaagaat tcggacttgt tgagttacta ctactactac tactaatccc atctgatgga 1320
ccgcattgta taggggggctt gtaggggtcc agcagcttca tcatcagtct ccttaggagg 1380
cctctaatat aatctccata tttatggtag aaataaattt tgcccaccgt ggaagaacta 1440
tataatagaa tcatgatgat ttgttgatta aaaaaaaaaa aaaaaaaaaa aaaaaaaa 1498

<210> 20
<211> 354
<212> PRT
<213> Oryza sativa

<400> 20
Met Val Ser Ala Leu Leu Arg Thr Ile Leu Val Thr Gly Gly Ala Gly
1 5 10 15
Tyr Ile Gly Ser His Thr Val Leu Gln Leu Leu Gln Leu Gly Phe Arg
20 25 30
Val Val Val Leu Asp Asn Leu Asp Asn Ala Ser Glu Leu Ala Ile Leu
35 40 45
Arg Val Arg Glu Leu Ala Gly His Asn Ala Asn Asn Leu Asp Phe Arg
50 55 60
Lys Val Asp Leu Arg Asp Lys Gln Ala Leu Asp Gln Ile Phe Ser Ser
65 70 75 80
Gln Arg Phe Glu Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Gly
85 90 95
Glu Ser Val Gln Lys Pro Leu Leu Tyr Tyr Asp Asn Asn Leu Ile Gly
100 105 110
Thr Ile Thr Leu Leu Gln Val Met Ala Ala His Gly Cys Thr Lys Leu
115 120 125
Val Phe Ser Ser Ser Ala Thr Val Tyr Gly Trp Pro Lys Glu Val Pro
130 135 140
Cys Thr Glu Glu Ser Pro Leu Cys Ala Met Asn Pro Tyr Gly Arg Thr
145 150 155 160
Lys Leu Val Ile Glu Asp Met Cys Arg Asp Leu His Ala Ser Asp Pro
165 170 175
Asn Trp Lys Ile Ile Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His
180 185 190
Pro Ser Gly Tyr Ile Gly Glu Asp Pro Cys Gly Ile Pro Asn Asn Leu
195 200 205
Met Pro Phe Val Gln Gln Val Ala Val Gly Arg Arg Pro Ala Leu Thr
210 215 220
Val Tyr Gly Thr Asp Tyr Asn Thr Lys Asp Gly Thr Gly Val Arg Asp
225 230 235 240
Tyr Ile His Val Val Asp Leu Ala Asp Gly His Ile Ala Ala Leu Arg
245 250 255

Lys Leu Tyr Glu Asp Ser Asp Arg Ile Gly Cys Glu Val Tyr Asn Leu
 260 265 270
 Gly Thr Gly Lys Gly Thr Ser Val Leu Glu Met Val Ala Ala Phe Glu
 275 280 285
 Lys Ala Ser Gly Lys Lys Ile Pro Leu Val Phe Ala Gly Arg Arg Pro
 290 295 300
 Gly Asp Ala Glu Ile Val Tyr Ala Gln Thr Ala Lys Ala Glu Lys Glu
 305 310 315 320
 Leu Lys Trp Lys Ala Lys Tyr Gly Val Glu Glu Met Cys Arg Asp Leu
 325 330 335
 Trp Asn Trp Ala Ser Lys Asn Pro Tyr Gly Tyr Gly Ser Pro Asp Ser
 340 345 350

Ser Asn

<210> 21
 <211> 1532
 <212> DNA
 <213> Glycine max

<400> 21
 gaattcggca cgagcgcgcaaa ctttcttcca aacgaacgtg tcacaaaatt ctgcctttct 60
 ccgaatatgg catcgcgcgt cagcattggc aaccttacct cctccgcgcc gtatatattaat 120
 tcccctcact ttcgctcacc acttaagatt tccaacaacc cctctctgca aaacgcttcg 180
 cataaggtac ttatgcgcga taagactgta ctgggtaaccg gcggagccgg ttacatcggc 240
 agccacaccg ttcttcagct cttgctcgga gggttcagag ccgtcgtcct cgacaacctc 300
 gaaaattcct ccgaggttgc catccacaga gtcagggagc tcgccggcga atttggaac 360
 aacctctcct ttcacaaggt ggacctacgg gacagagctg ctctagacca aatattttct 420
 tccacacaat tcgatgctgt catacatttt gctggactga aagcagtagg agaaagtgtg 480
 caaaaacctt tactatacta taacaacaac ttgactggga caatcactct attggaagtc 540
 atggctgccc atggatgcaa gaagctcgtg ttttcatctt cagcaactgt atatggttgg 600
 ccaaaggagg ttccatgcac agaagagttc cctctgtcag caatgaaccc atatggacga 660
 actaagctta tcattgaaga aatttgccgt gatgtccact gtgcagagcc agattgtaaa 720
 ataattttgt taagatactt caacccagtt ggtgcacacc ccagtgggta tattggggag 780
 gatcctcgtg gaattccaaa caatctcatg ccatttggtc agcaagtagc agttggccga 840
 cggcctgcac tgacagtttt tggaaatgat tataatacaa gtgatggcac tgggggttcgg 900
 gattacattc atgttggtga tttagcagat gggcacattg ctgcattgct taaactagat 960
 gaacctaaata taggttggtga gggtttataac ctgggaacag gaaagggaac atcagttttg 1020
 gagatgggtta gagcttttga aatggcatct ggaaagaaaa ttccacttgt gatggctggc 1080
 cgtagacctg gtgatgctga aattgtttat gcatcaacaa agaaagcggg aagagagctt 1140
 aaatggaagg caaaatatgg cattgatgag atgtgccgtg atcaatggaa ttgggctagc 1200
 aaaaaccctt atggctatgg agatcagggc tccaccgatt aaccacttag ttttctcttt 1260
 ggggttctttt ctgaactcac ccacaccgta gtccgtaggt cttgtgaatt tagttttccc 1320
 aaaagctttt ctttcttttag tgatcttaag gtgacaaagt acttgatta ttactattca 1380
 tagttacata gtaagtaagt agtgggtttac tatactgtaa tttaaagggt ctctaggttc 1440
 cttcttacag gttattgatt attagattcg gattctctca tgttccacat gagcagcatc 1500
 ctgttttgta aatctaaatc acatgtttgt tt 1532

<210> 22
 <211> 349
 <212> PRT
 <213> Glycine max

<400> 22
 Met Arg Asp Lys Thr Val Leu Val Thr Gly Gly Ala Gly Tyr Ile Gly
 1 5 10 15
 Ser His Thr Val Leu Gln Leu Leu Leu Gly Gly Phe Arg Ala Val Val
 20 25 30
 Leu Asp Asn Leu Glu Asn Ser Ser Glu Val Ala Ile His Arg Val Arg
 35 40 45
 Glu Leu Ala Gly Glu Phe Gly Asn Asn Leu Ser Phe His Lys Val Asp
 50 55 60
 Leu Arg Asp Arg Ala Ala Leu Asp Gln Ile Phe Ser Ser Thr Gln Phe
 65 70 75 80
 Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu Ser Val
 85 90 95
 Gln Lys Pro Leu Leu Tyr Tyr Asn Asn Asn Leu Thr Gly Thr Ile Thr
 100 105 110
 Leu Leu Glu Val Met Ala Ala His Gly Cys Lys Lys Leu Val Phe Ser
 115 120 125
 Ser Ser Ala Thr Val Tyr Gly Trp Pro Lys Glu Val Pro Cys Thr Glu
 130 135 140
 Glu Phe Pro Leu Ser Ala Met Asn Pro Tyr Gly Arg Thr Lys Leu Ile
 145 150 155 160
 Ile Glu Glu Ile Cys Arg Asp Val His Cys Ala Glu Pro Asp Cys Lys
 165 170 175
 Ile Ile Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly
 180 185 190
 Tyr Ile Gly Glu Asp Pro Arg Gly Ile Pro Asn Asn Leu Met Pro Phe
 195 200 205
 Val Gln Gln Val Ala Val Gly Arg Arg Pro Ala Leu Thr Val Phe Gly
 210 215 220
 Asn Asp Tyr Asn Thr Ser Asp Gly Thr Gly Val Arg Asp Tyr Ile His
 225 230 235 240
 Val Val Asp Leu Ala Asp Gly His Ile Ala Ala Leu Leu Lys Leu Asp
 245 250 255
 Glu Pro Asn Ile Gly Cys Glu Val Tyr Asn Leu Gly Thr Gly Lys Gly
 260 265 270
 Thr Ser Val Leu Glu Met Val Arg Ala Phe Glu Met Ala Ser Gly Lys
 275 280 285
 Lys Ile Pro Leu Val Met Ala Gly Arg Arg Pro Gly Asp Ala Glu Ile
 290 295 300
 Val Tyr Ala Ser Thr Lys Lys Ala Glu Arg Glu Leu Lys Trp Lys Ala
 305 310 315 320

Lys Tyr Gly Ile Asp Glu Met Cys Arg Asp Gln Trp Asn Trp Ala Ser
325 330 335

Lys Asn Pro Tyr Gly Tyr Gly Asp Gln Gly Ser Thr Asp
340 345

<210> 23
<211> 490
<212> DNA
<213> Triticum aestivum

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (73)

<220>
<221> unsure
<222> (81)

<220>
<221> unsure
<222> (207)

<220>
<221> unsure
<222> (246)

<220>
<221> unsure
<222> (284)

<220>
<221> unsure
<222> (319)

<220>
<221> unsure
<222> (332)

<220>
<221> unsure
<222> (378) .. (379)

<220>
<221> unsure
<222> (409)

<220>
<221> unsure
<222> (413)

<220>
<221> unsure
<222> (418)

<220>
 <221> unsure
 <222> (455)

<220>
 <221> unsure
 <222> (461)

<220>
 <221> unsure
 <222> (468)

<220>
 <221> unsure
 <222> (480)

<220>
 <221> unsure
 <222> (482)

<400> 23
 aagaaacaag agagcaagga agaagaagat ggtgtctgcg gtggtgagga cgattcctgg 60
 ntgaccggcg gcnccgggta natcggcagc cacaccgtgc tgcagctgct cctgcagggc 120
 ttccgcgtcc tcgtagtcca cagcctcgac aacgcctccg aggaggccat ccgccgcgtc 180
 cgacaactcg ccaacgcccc gcaaaanagc ctcgacttcc gcaaggtgga ccttcgtgac 240
 aaggangcgc tcgaccaaatt cttctcctcc caaaggatc ttcnactttt ttccgcaaaa 300
 aagaagtatc ttttttcgng cttattatta anaattaact atagtatatt attgagtcca 360
 caaattaaat gttgattnnt ccgtccgtcc cggccgctcg gccagccanc canccgtntc 420
 tgctgctata gcaaatacga ctccctttcta tcagnatcgt ngtcgttngt aggtgtcaan 480
 cncctacgag 490

<210> 24
 <211> 103
 <212> PRT
 <213> Triticum aestivum

<220>
 <221> UNSURE
 <222> (4)

<220>
 <221> UNSURE
 <222> (6)

<220>
 <221> UNSURE
 <222> (48)

<220>
 <221> UNSURE
 <222> (61)

<220>
 <221> UNSURE
 <222> (74)

<220>
 <221> UNSURE
 <222> (86)

<220>
 <221> UNSURE
 <222> (90)

<400> 24
 Thr Gly Gly Xaa Gly Xaa Ile Gly Ser His Thr Val Leu Gln Leu Leu
 1 5 10 15
 Leu Gln Gly Phe Arg Val Leu Val Val Asp Ser Leu Asp Asn Ala Ser
 20 25 30
 Glu Glu Ala Ile Arg Arg Val Arg Gln Leu Ala Asn Ala Pro Gln Xaa
 35 40 45
 Ser Leu Asp Phe Arg Lys Val Asp Leu Arg Asp Lys Xaa Ala Leu Asp
 50 55 60
 Gln Ile Phe Ser Ser Gln Arg Tyr Leu Xaa Leu Phe Ser Ala Lys Lys
 65 70 75 80
 Lys Tyr Leu Phe Ser Xaa Leu Leu Leu Xaa Ile Asn Tyr Ser Ile Leu
 85 90 95
 Leu Ser Pro Gln Ile Lys Cys
 100

<210> 25
 <211> 350
 <212> PRT
 <213> Pisum sativum

<400> 25
 Met Val Ala Ser Ser Gln Lys Ile Leu Val Thr Gly Ser Ala Gly Phe
 1 5 10 15
 Ile Gly Thr His Thr Val Val Gln Leu Leu Asn Asn Gly Phe Asn Val
 20 25 30
 Ser Ile Ile Asp Asn Phe Asp Asn Ser Val Met Glu Ala Val Glu Arg
 35 40 45
 Val Arg Glu Val Val Gly Ser Asn Leu Ser Gln Asn Leu Glu Phe Thr
 50 55 60
 Leu Gly Asp Leu Arg Asn Lys Asp Asp Leu Glu Lys Leu Phe Ser Lys
 65 70 75 80
 Ser Lys Phe Asp Ala Val Ile His Phe Ala Gly Leu Lys Ala Val Gly
 85 90 95
 Glu Ser Val Glu Asn Pro Arg Arg Tyr Phe Asp Asn Asn Leu Val Gly
 100 105 110
 Thr Ile Asn Leu Tyr Glu Val Met Ala Lys His Asn Cys Lys Lys Met
 115 120 125
 Val Phe Ser Ser Ser Ala Thr Val Tyr Gly Gln Pro Glu Lys Ile Pro
 130 135 140

Cys Val Glu Asp Phe Lys Leu Gln Ala Met Asn Pro Tyr Gly Arg Thr
 145 150 155 160
 Lys Leu Phe Leu Glu Glu Ile Ala Arg Asp Ile Gln Lys Ala Glu Pro
 165 170 175
 Glu Trp Arg Ile Val Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His
 180 185 190
 Glu Ser Gly Lys Leu Gly Glu Asp Pro Arg Gly Ile Pro Asn Asn Leu
 195 200 205
 Met Pro Tyr Ile Gln Gln Val Ala Val Gly Arg Leu Pro Glu Leu Asn
 210 215 220
 Val Tyr Gly His Asp Tyr Pro Thr Arg Asp Gly Ser Ala Ile Arg Asp
 225 230 235 240
 Tyr Ile His Val Met Asp Leu Ala Asp Gly His Ile Ala Ala Leu Arg
 245 250 255
 Lys Leu Phe Thr Ser Glu Asn Ile Gly Cys Thr Ala Tyr Asn Leu Gly
 260 265 270
 Thr Gly Arg Gly Ser Ser Val Leu Glu Met Val Ala Ala Phe Glu Lys
 275 280 285
 Ala Ser Gly Lys Lys Ile Ala Leu Lys Leu Cys Pro Arg Arg Pro Gly
 290 295 300
 Asp Ala Thr Glu Val Tyr Ala Ser Thr Ala Lys Ala Glu Lys Glu Leu
 305 310 315 320
 Gly Trp Lys Ala Lys Tyr Gly Val Glu Glu Met Cys Arg Asp Gln Trp
 325 330 335
 Asn Trp Ala Lys Asn Asn Pro Trp Gly Tyr Ser Gly Lys Pro
 340 345 350
 <210> 26
 <211> 350
 <212> PRT
 <213> Cyamopsis tetragonoloba
 <400> 26
 Met Ser Ser Gln Thr Val Leu Val Thr Gly Gly Ala Gly Tyr Ile Gly
 1 5 10 15
 Ser His Thr Val Leu Gln Leu Leu Leu Gly Gly Phe Lys Ala Val Val
 20 25 30
 Val Asp Asn Leu Asp Asn Ser Ser Glu Thr Ala Ile His Arg Val Lys
 35 40 45
 Glu Leu Ala Gly Lys Phe Ala Gly Asn Leu Ser Phe His Lys Leu Asp
 50 55 60
 Leu Arg Asp Arg Asp Ala Leu Glu Lys Ile Phe Ser Ser Thr Lys Phe
 65 70 75 80

Asp	Ser	Val	Ile	His	Phe	Ala	Gly	Leu	Lys	Ala	Val	Gly	Glu	Ser	Val	85	90	95	
Gln	Lys	Pro	Leu	Leu	Tyr	Tyr	Asp	Asn	Asn	Leu	Ile	Gly	Thr	Ile	Val	100	105	110	
Leu	Phe	Glu	Val	Met	Ala	Ala	His	Gly	Cys	Lys	Lys	Leu	Val	Phe	Ser	115	120	125	
Ser	Ser	Ala	Thr	Val	Tyr	Gly	Leu	Pro	Lys	Glu	Val	Pro	Cys	Thr	Glu	130	135	140	
Glu	Phe	Pro	Leu	Ser	Ala	Ala	Asn	Pro	Tyr	Gly	Arg	Thr	Lys	Leu	Ile	145	150	155	160
Ile	Glu	Glu	Ile	Cys	Arg	Asp	Ile	Tyr	Arg	Ala	Glu	Gln	Glu	Trp	Lys	165	170	175	
Ile	Ile	Leu	Leu	Arg	Tyr	Phe	Asn	Pro	Val	Gly	Ala	His	Pro	Ser	Gly	180	185	190	
Tyr	Ile	Gly	Glu	Asp	Pro	Arg	Gly	Ile	Pro	Asn	Asn	Leu	Met	Pro	Phe	195	200	205	
Val	Gln	Gln	Val	Ala	Val	Gly	Arg	Arg	Pro	Ala	Leu	Thr	Val	Phe	Gly	210	215	220	
Asn	Asp	Tyr	Thr	Thr	Ser	Asp	Gly	Thr	Gly	Val	Arg	Asp	Tyr	Ile	His	225	230	235	240
Val	Val	Asp	Leu	Ala	Asp	Gly	His	Ile	Ala	Ala	Leu	Arg	Lys	Leu	Asn	245	250	255	
Asp	Pro	Lys	Ile	Gly	Cys	Glu	Val	Tyr	Asn	Leu	Gly	Thr	Gly	Lys	Gly	260	265	270	
Thr	Ser	Val	Leu	Glu	Met	Val	Lys	Ala	Phe	Glu	Gln	Ala	Ser	Gly	Lys	275	280	285	
Lys	Ile	Pro	Leu	Val	Met	Ala	Gly	Arg	Arg	Pro	Gly	Asp	Ala	Glu	Val	290	295	300	
Val	Tyr	Ala	Ser	Thr	Asn	Lys	Ala	Glu	Arg	Glu	Leu	Asn	Trp	Lys	Ala	305	310	315	320
Lys	Tyr	Gly	Ile	Asp	Glu	Met	Cys	Arg	Asp	Gln	Trp	Asn	Trp	Ala	Ser	325	330	335	
Lys	Asn	Pro	Tyr	Gly	Tyr	Gly	Gly	Ser	Glu	Asp	Ser	Ser	Asn			340	345	350	

<210> 27

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide

<400> 27
catggaggag cag

13

<210> 28
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide

<400> 28
ctgctctc

9